

PRESCHOOL CURRICULUM EVALUATION RESEARCH GRANTS

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Institute of Education Sciences

<http://www.ed.gov/offices/IES/funding.html>

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APPLICATION RECEIPT DATE: March 14, 2003

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Request for Applications

The Institute of Education Sciences invites applications for research projects that will contribute to its Preschool Curriculum Evaluation Research program. For this competition, the Institute will consider only applications that meet the requirements outlined below under the section on Requirements of the Proposed Research.

Purpose of the Research Program

The purpose of the Preschool Curriculum Evaluation Research (PCER) program is to implement rigorous evaluations of preschool curricula that will provide information to support informed choices of classroom curricula for early childhood programs. This competition will support research that will determine, through randomized experiments, whether one or more curricula produce educationally meaningful effects on children. This program will make funds available through cooperative agreements between the Institute and eligible agencies to jointly conduct evaluation research.

Background

The importance of early child-care and preschool experiences in supporting cognitive development and other skills essential to a successful transition into school is a focus of the administration's early childhood initiative -- Good Start, Grow Smart. This initiative calls attention to the need for preschool programs to enhance their instructional content in order to ensure that young children start school with the skills that will lead to continued academic success.

The evidence that would allow informed choices of classroom curricula for early childhood programs is weak. Rigorous preschool program evaluations that exist are for programs designed and delivered decades ago. The results from historical evaluations of preschool curricula and current research on the learning and development of young children provide some insights into general features of successful preschool programs. However, they give little guidance for selecting from among the ever-expanding list of available preschool curricula. This research program is intended to address the lack of rigorous, systematic evaluation of preschool curricula currently in use.

The Preschool Curriculum Evaluation Research program is intended to build on recent initiatives aimed at evaluating the preschool experiences of children. These initiatives include the Family and Child Experiences Survey (FACES) undertaken by Head Start, and the Early Childhood Longitudinal Survey-Kindergarten Cohort (ECLS-K) and the Early Childhood Longitudinal Survey-Birth Cohort (ECLS-B), both ongoing projects of the National Center for Education Statistics within the Institute.

The outcomes of greatest interest to PCER are those skills that are most highly predictive of academic success in the early years of elementary school and that are most amenable to influence by factors within the realm of classroom curricula and practice. These outcomes include language development, pre-reading and pre-math abilities, cognition, general knowledge, and social competence.

The curricula of primary interest to PCER are those with sufficient standardized training procedures and published curriculum materials to support implementation of the curriculum by entities other than, and at a distance from, the curriculum developers. In addition, the curricula of interest to PCER are those that focus on the child outcomes described in the preceding

paragraph and those with instructional approaches supported in the scientific literature on learning and instruction.

An applicant is not expected to compare different well-articulated, well-implemented preschool curricula, although this is not discouraged. Rather, the Institute anticipates that the typical applicant will propose to implement a well-articulated, well-implemented curriculum and compare it to the prevailing approach, which is likely to be a home-grown, unlabeled preschool experience that lacks specific instructional goals and a detailed curriculum.

PCER is not intended to support the development of new curricula, or to support research on interventions for children from birth to 3 years of age. These efforts are the focus of other programs of research to be sponsored by other Federal agencies participating in the Interagency Task Force on Early Childhood Development.

Requirements of the Proposed Research

PCER will fund projects for up to a four-year period. Evaluation designs must include both short-term and long-term outcomes. Initial results are expected at the end of the first year of curriculum implementation. Long-term outcomes must include follow-up into kindergarten and first grade. Applicants must plan for an implementation in pre-K classrooms in year 1, follow-up into kindergarten in year 2, follow-up into first grade in year 3, and completion of data analysis and reports in year 4.

In the event that a PCER project does not generate meaningful differences between intervention and control classrooms in terms of children's outcomes at the end of year 1, and when this lack of effect appears to be attributable to unforeseen and remediable problems in implementation, grantees will be given a second year of funding to repeat a pre-K implementation of their selected curriculum. When curriculum effects on children's outcomes are not obtained at the end of the pre-K year, and this lack of effect appears to be a valid indicator of program ineffectiveness, grantees will be encouraged to implement and evaluate curricula that have proven effective as deployed by other grantees.

The Institute will use a *cooperative agreement* mechanism that allows substantial Federal involvement in the activities undertaken with Federal financial support. The specific responsibilities of the Federal staff and project staff will be identified and agreed upon prior to the award of each cooperative agreement. Through cooperative agreements, grantees will work with a national evaluation coordinator, funded separately by the Institute, to ensure that evaluations carried out in different locations follow consistent protocols and use a core set of comparable measures. The cross-site data will be collected by the national evaluation coordinator and returned to grantees in a timely manner for their own use. The core set of evaluation data collected by the national contractor will include assessments of child characteristics and outcomes, family characteristics and parenting, teacher and classroom practices, and classroom environment. For the purposes of planning proposed studies and calculating participant burden, a full listing of the core measures and procedures used in the 2002-2003 PCER data collection can be found at:

<http://pcer.rti.org>

For this research program, each applicant must propose to implement one or more pre-kindergarten (pre-K) curricula. Applicants should propose a curriculum that is *not* currently being evaluated through PCER or provide a compelling rationale explaining why an additional evaluation of the chosen curriculum is needed. The curricula currently under study are:

- Creative Curriculum
- Bright Beginnings
- Early Literacy and Learning Model (ELLM)
- Ladders to Literacy
- Project Approach
- Let's Begin with the Letter People
- Doors to Discovery
- Pre-K Mathematics with DLM Express Math Resource Package

Applicants must provide a convincing rationale for the target intervention being likely to improve children's outcomes compared with the practices used in the control or comparison conditions. In this regard and for all the projects, the Institute requires a reasonable assumption that children in the intervention classrooms will experience neutral to positive outcomes — rather than negative outcomes — compared with children in the control classrooms.

Investigators must employ random assignment in the evaluation design. A preschool program that is to be a site for curriculum implementation must agree to cooperate fully with the random assignment as a condition for the applicant to receive an award. To facilitate random assignment, the Institute encourages applicants to consider the use of incentives for schools and families. These may include, but are not limited to: compensation for additional preschool staff time required to cooperate with the research effort; funding for a new classroom; provision of additional resources to enable a program to conduct new activities; securing vehicles for transportation; and stipends to families.

Applicants are required to follow children who participate in studies of PCER curricula that generate educationally meaningful effects at the end of the pre-K year into kindergarten and first grade. The national coordinator will assess all children at follow-up in both the intervention and control or comparison conditions. However, each grantee would be responsible for making arrangements for these assessments, including obtaining parental permission and negotiating access to children for testing in their schools. The applicant must address how it will provide access to children for follow-up testing.

Applicants must incorporate complementary studies to conduct in conjunction with the cross-site program evaluation. The complementary research may address a range of issues related broadly to curriculum effectiveness, such as the impact of curriculum implementation on preschool staff, the influence of individual differences in children on program impact, the development of instrumentation, the mechanisms by which curricula support children's learning, or other related topics. Complementary research provides an opportunity to identify outcomes that, because of data constraints, are not explored in the core evaluation or are specific to an individual site. It expands the possibilities for multiple measures of the same variable, and for the development of

new measures. Complementary research designs may involve continued pre-K implementations and ongoing research in the pre-K setting for some or all years of the grant while children in the first cohort are being followed into first grade.

Two areas of complementary research are of particular interest:

- (1) Studies that address how individual or background differences in children interact with the curriculum to influence developmental outcomes. These studies would address the question: For which children under which conditions is the curriculum most successful?
- (2) Studies that compare different versions of the curriculum or different approaches to implementation in order to identify key features of the curriculum and approaches that might improve effectiveness and ease of implementation. These studies would address the question: Under what circumstances does the curriculum achieve the greatest impact?

Applicants must also do the following:

- (a) Be able to guarantee access to a minimum of 10 classrooms with a total of 150 children. The national coordinator can accommodate data collection using the core PCER battery for a maximum of 20 classrooms and 300 children for each applicant. An applicant that proposes to include more than this maximum must include the costs of additional data collection in its budget;
- (b) Propose to include only children who are of an age in the first year of the study to be eligible for entrance into public kindergarten in the second year;
- (c) Either focus on preschools that serve children from low-income backgrounds or assure that these children are present in significant numbers within the preschool classrooms that are sampled;
- (d) Provide a letter of cooperation from participating preschool programs for the purposes of conducting the research. In the letter of cooperation, representatives of the preschool would have to clearly indicate and accept the responsibilities associated with participating in the study. These responsibilities must include (1) agreement to provide a sufficient number of preschool sites and classrooms to participate in the study and (2) agreement to the random assignment of children or classrooms to the curriculum being evaluated versus one or more comparison approaches;
- (e) Provide an on-site coordinator to manage all aspects of data collection, curriculum implementation, and interaction with the national coordinator;
- (f) Be prepared to collaborate with Institute staff and the national evaluation coordinator in the development of the human subjects protocol and to have approval from the applicant's Institutional Review Board for conducting the proposed research at the time the award is made;
- (g) Be prepared to obtain informed consent of parents of children participating in the study, and of all teachers and other administrators from whom data will be collected in a timely fashion;

- (h) Be prepared to provide all necessary materials and professional development to teachers and staff to implement the curriculum to be evaluated in the intervention classrooms;
- (i) Be prepared to make all on-site arrangements necessary for the national coordinator to assess participating children and classrooms;
- (j) Be prepared to make all on-site arrangements necessary for the national coordinator to conduct face-to-face interviews with parents each time data are collected from children and classrooms; and
- (k) Be prepared to work with the national evaluation contractor for the collection of cross-site data, in coordination with any local data collection activities, and understanding that the timing of the cross-site data collection will take precedence over the timing of any local data collection activities.

In the proposal, the applicant must include:

- (a) Clear and complete descriptions of the control condition and the intervention condition or conditions;
- (b) An explanation of procedures for random assignment and discussion of procedures for tracking fidelity to the assignment and potential sources of contamination;
- (c) The logic of sampling so as to capture, to the degree possible, diversity in the preschool population to be studied. Core variables an applicant should consider for capturing diversity include: race, ethnicity status or language status or both; household income; parental education and childhood disability status;
- (d) A discussion of possible variations in the structure of the participating preschool program or programs (part-day or full-day, public or private, for-profit or non-profit, etc.) and how the applicant will take these variations into consideration in the evaluation design; and
- (e) A discussion of how the applicant will document implementation of and fidelity to the curriculum.

In addition to the above requirements, the following also apply:

- (a) An applicant that is not a research organization must obtain the services of at least one consultant who is an established researcher and who has committed enough time to the project to assure the integrity of the local evaluation and to participate in all required meetings.
- (b) An applicant that is a research organization may involve curriculum developers or distributors in the project, from having the curriculum developers as full partners in its proposal to using off-the-shelf curriculum materials without involvement of the developer or publisher. Involvement of the curriculum developer or distributor must not jeopardize the objectivity of the

evaluation and must not involve a level of professional training or support for the curriculum that rises above that available to ordinary adopters of the curriculum.

(c) An applicant that is a commercial curriculum developer must indicate in the budget summary the value of any nonfederal resources that would be devoted to the research project, such as their curriculum products.

Applications Available

Application forms and instructions for the electronic submission of applications will be available for this program of research no later than February 21, 2003, from the following web site:

<http://ies.asciences.com>

Mechanism of Support

The Institute intends to award grants in the form of cooperative agreements for periods up to 48 months pursuant to this request for applications.

Funding Available

The Institute may award up to 15 or more grants pursuant to this request and expects that a first year award, for a minimal sample size, described above, will be approximately \$350,000. Funding levels could be substantially higher for grants involving larger samples and experimental examination of the effects of variations in curriculum or implementation. Although the plans of the Institute include this program of research, awards pursuant to this request for applications are contingent upon the availability of funds and the receipt of a sufficient number of meritorious applications.

Eligible Applicants

Applicants that have the ability and capacity to conduct scientifically valid research are eligible to apply. Eligible applicants include, but are not limited to, non-profit and for-profit organizations and public and private agencies and institutions, such as colleges and universities.

Special Requirements

Applicants should budget for two meetings each year in Washington, DC, with other grantees and Institute staff. At least one project representative should attend each two-day meeting.

Letter of Intent

A letter indicating a potential applicant's intent to submit an application is optional, but encouraged, for each application. The letter of intent is to be sent by the date listed at the beginning of this document and should indicate -- in the email subject line -- the title of the program of research covered by this request for applications and the number of the request. The title and number of this request for

applications are also specified at the beginning of this document. Receipt of the letter of intent will be acknowledged by e-mail.

The letter of intent should not exceed one page in length and should include a descriptive title and brief description of the research project; the name, institutional affiliation, address, telephone number and e-mail address of the principal investigator(s); and the name and institutional affiliation of any key collaborators. The letter of intent should indicate the duration of the proposed project and provide an estimated budget request by year, and a total budget request. Although the letter of intent is optional, is not binding, and does not enter into the review of subsequent applications, the information that it contains allows Institute staff to estimate the potential workload to plan the review. The letter of intent should be submitted by e-mail to:

IES-LOI@asciences.com

Submitting an Application

Applications must be submitted electronically by the application receipt date, using the ED standard forms and the instructions provided at the following web site:

<http://ies.asciences.com>

Potential applicants should check this site as soon as possible after February 21, 2003, when application forms and instructions first become available, for information about the electronic submission procedures that must be followed and the software that will be required.

The application form approved for this program is OMB Number 1890-0009.

Contents and Page Limits of Application

The application must include the following sections: (1) title page form (ED 424); (2) budget summary form (ED 524); (3) one-page abstract; (4) research narrative; (5) references; (6) curriculum vitae for principal investigators(s) and other key personnel (limited to 3 pages each and including only information sufficient to demonstrate that personnel possess training and expertise commensurate with their duties); (7) narrative budget justification; and (8) appendix.

The one-page *abstract* must include: The title of the project and brief descriptions of (1) the purpose of the project or the educational problem that will be addressed; (2) the population(s) from which the participants of the study(ies) will be sampled (age groups, race/ethnicity, SES); (3) the proposed research method(s); and (4) the proposed intervention if one has been proposed.

Incorporating the requirements outlined under the section on Requirements of the Proposed Research, the *research narrative* provides the majority of the information on which reviewers will evaluate the proposal and should address:

(a) Significance of the Project

- (1) Identify the educational problem that will be addressed by the study and describe the contribution the study will make to a solution to that problem.

(b) Approach

- (1) Provide a theoretical framework and review relevant prior empirical evidence supporting the proposed project, including a description of the intervention along with the conceptual rationale and empirical evidence supporting the intervention;
- (2) Include clear, concise hypotheses or research questions;
- (3) Present a clear description of, and a rationale for, the sample or study participants, including justification for exclusion and inclusion criteria and, where groups or conditions are involved, strategies for assigning participants to groups;
- (4) Provide clear descriptions of, and rationales for, data collection procedures and measures to be used; and
- (5) Present a detailed data analysis plan that justifies and explains the selected analytic strategy, shows clearly how the measures and analyses relate to the hypotheses or research questions, and indicates how the results will be interpreted. Quantitative studies should, where sufficient information is available, include a power analysis to provide some assurance that the sample is of sufficient size.

(c) Personnel

- (1) Include brief descriptions of the qualifications of key personnel (information on personnel should also be provided in their curriculum vitae).

(d) Resources

- (1) Provide a description of the resources available to support the project at the applicant's institution and in the field settings in which the research will be conducted.

The research narrative (text plus all figures, charts, tables, and diagrams) is limited to the equivalent of 25 pages, where a "page" is 8.5 in. x 11 in., on one side only, with 1 inch margins at the top, bottom, and both sides. Double space (no more than 3 lines per vertical inch) all text in the research narrative. Use a font that is either 12-point or larger, or no smaller than 10 pitch (i.e., 10 characters per inch).

The 25-page limit does not apply to the title page form, the one-page abstract, the budget summary form and narrative budget justification, the curriculum vitae, references, or the assurances and certifications.

Reviewers are able to conduct the highest quality review when applications are concise and easy to read, with pages numbered consecutively.

The *budget justification* must provide sufficient detail to allow reviewers to judge whether reasonable costs have been attributed to the project. It must include the time commitments and brief descriptions of the responsibilities of key personnel.

The *appendix* must include letters of agreement from all partners (e.g., schools) and consultants. Each letter should include enough information to make it clear that the author of the letter understands the nature of the commitment of time, space, and resources to the research project that will be required if the application is funded. The appendix is limited to 15 pages.

Application Processing

Applications must be received by 11:59 p.m. Eastern time on the application receipt date listed in the heading of this request for applications. Upon receipt, each application will be reviewed for completeness and for responsiveness to this request for applications. Incomplete applications and applications that do not address specific requirements of this request will be returned to the applicants without further consideration.

Peer Review Process

Applications that are complete and responsive to this request will be evaluated for scientific and technical merit. Reviews will be conducted in accordance with the review criteria stated below.

Each application will be assigned to at least two primary reviewers who will complete written evaluations of the application, identifying strengths and weaknesses related to each of the review criteria. Primary reviewers will independently assign a score for each criterion, as well as an overall score, for each application they review. Based on the overall scores assigned by primary reviewers, an average overall score for each application will be calculated and a preliminary rank order of applications prepared before the full peer review panel convenes to complete the review of applications.

The 30 applications deemed to have the highest merit, as reflected by the preliminary rank order, will be reviewed by a full panel of approximately 20 individuals who have substantive and methodological expertise appropriate to the program of research and request for applications, and who served as primary reviewers for individual applications. An individual reviewer may propose to the full panel that a particular application that does not score among the top 30 in the preliminary scoring but which the reviewer believes merits consideration should also be reviewed. The panel will decide whether to review any such application.

All members of the peer review panel will be expected to review the 30 applications being considered by the panel. Following presentations by the primary reviewers and discussion by the full panel, each member of the peer review panel will score each application, assigning a score for each criterion, as well as an overall score. In addition, reviewers will indicate whether or not an application is recommended for funding.

Review Criteria

The goal of Institute-supported research is to contribute to the solution of educational problems and to provide reliable information about the educational practices that support learning and improve academic achievement and access to educational opportunities for all students. Reviewers will be expected to assess the following aspects of an application in order to judge the likelihood that the proposed research will have a substantial impact on the pursuit of that goal. Information pertinent to each of these criteria is also described above in the section on Requirements of the Proposed Research and in the description of the research narrative, which appears in the section on Contents and Page Limits of Application.

- Significance (importance of the addressed problem, contribution of project to solution of the problem)
- Approach (conceptual rationale, hypotheses or research questions, measures, research design, analytic methods)
- Personnel (qualifications of project staff)
- Resources (support at applicant's institution and at field settings)

Strong applications for Preschool Curriculum Evaluation Research Grants clearly address each of the review criteria. They make a well-reasoned and compelling case for the significance of the project and the problems or issues that will be the subject of the proposed research. They present a research design (approach) that is complete and clearly delineated, and that incorporates sound research methods. In addition, the personnel descriptions included in strong applications make it apparent that the project director, principal investigator, and other key personnel possess training and experience commensurate with their duties. Descriptions of facilities, equipment, supplies, and other resources demonstrate that they are adequate to support the proposed activities. Commitments of each partner show support for the implementation and success of the project.

Receipt and Review Schedule

Letter of Intent Receipt Date: January 24, 2003

Application Receipt Date: March 14, 2003

Peer Review Date: May 15-16, 2003

Earliest Anticipated Start Date: July 15, 2003

Award Decisions

The following will be considered in making award decisions:

- Scientific merit as determined by the peer review
- Responsiveness to the requirements of this request
- Performance and use of funds under a previous Federal award
- Contribution to the overall program of research described in this request
- Availability of funds

Direct your questions to:

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PROGRAM AUTHORITY: 20 U.S.C. 9501 et seq., the “Education Sciences Reform Act of 2002,” Title I of Public Law 107-279, November 5, 2002. This program is not subject to the intergovernmental review requirements of Executive Order 12372.

APPLICABLE REGULATIONS: The Education Department General Administrative Regulations (EDGAR) in 34 CFR parts 74, 77, 80, 81, 82, 85, 86 (part 86 applies only to Institutions of Higher Education), 97, 98, and 99. In addition, 34 CFR part 75 is applicable, except for the provisions in 34 CFR 75.102, 75.103, 75.105, 75.109(a), 75.200, 75.201, 75.209, 75.210, 75.217, 75.219, 75.220, and 75.230.